21, and 32 are the independent claims.

Claims 1, 14, 18, 19, 20-23, and 29-31 have been amended. Applicants submit that support for these amendments can be found in the original disclosure, and therefore no new matter has been added.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our below-listed address.

Respectfully submitted,

Attorney for Applicants
Brian L. Klock
Registration No. 36,570

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

BLK/lmj

VERSION WITH MARKINGS SHOWING CHANGES MADE TO CLAIMS

1. (Amended) A stereoscopic image displaying method, wherein, when image information displayed on an image displaying device is observed three-dimensionally by guiding display light from an image corresponding to a viewpoint of one parallax image on said image displaying device, on which parallax images corresponding to a plurality of different viewpoints can be displayed, to [an optical modulator, on which a light transmitting section and a light shielding section can be formed, by a second optical system disposed in the front of said image displaying device] <u>a light transmitting section and a light shielding section formed within an optical modulator, by a second optical system</u>, and collecting the display light transmitted through said light transmitting section of said optical modulator at a position, which is a predetermined distance apart, corresponding to the viewpoint on an observation surface, by a first optical system, the entire screen of a parallax image to be displayed on said image displaying device is caused to be incident on each eye by controlling transmitted light from said optical modulator in synchronism with the switching of parallax images to be displayed on said image displaying device.

14. (Amended) A stereoscopic image displaying method according to claim 1, wherein

said second optical system focuses an image of said image displaying device [on said optical modulator] <u>on a plane within said modulator on which said light transmitting section and said light shielding section are formed</u> in the vertical direction, and a focal

point position of said second optical system and the position of said <u>plane within said</u> optical modulator substantially coincide with each other in the horizontal direction.

18. (Amended) A stereoscopic image displaying method according to any one of claims 1, 2, 3 and 5, wherein

when the left and the right pupils are apart by an interval E, a period in the horizontal direction of said optical element forming said first optical system is HL1, a width in the horizontal direction of said light transmitting section of said optical modulator is Hm, a period in the horizontal direction of said optical element forming said second optical system is HL2, a pixel pitch in the horizontal direction of said image displaying device is Hd, optical distances between said first optical system and said second optical system and said first optical system and said image displaying device are LhL2 and Lhd, respectively, an optical distance from the observation surface to said first optical system is Lh0, an optical distance from a crossing face that is the first one counted from said first optical system in the direction to said image displaying device among faces on which a group of light beams connecting the left and the right pupils and each pixel of said image displaying device cross is Lh1, an optical distance from said first optical system to [said optical modulator] <u>a plane within said modulator on which said light transmitting section and said light shielding section are formed</u> is Lh1a, an optical distance from said [first optical system] <u>plane within said optical modulator</u> to a crossing face that is the first one counted from said first optical system in the direction to said image displaying device is

Lh1b, and both Nd and NL2 are integral numbers of 2 or more, the following relation is realized:

$$Nd*HL1/E=Lhd/(Lhd+Lh0) \ldots (hl)$$

$$Hd/HL1=(Lh0+Lhd)/Lh0 \ldots (h2)$$

$$NL2*HL1/E=LhL2/(LhL2+Lh0) \ldots (h3)$$

$$HL2/HL1=(Lh0+LhL2)/Lh0 \ldots (h4)$$

$$H1/E=Lh1/(Lh1+Lh0) \ldots (h5)$$

$$H1/HL1=(Lh1+Lh0)/Lh0 \ldots (h6)$$

$$Hl*Lh1a/Lh1=HL1*Lh1b/Lh1 \ldots (h7)$$

$$Lh1a+Lh1b=Lh1 \ldots (h8)$$

$$Hm/H1=Lh1a/Lh1 \ldots (h9)$$

19. (Amended) A stereoscopic image displaying method according to claim 4, wherein

when the left and the right pupils are apart by an interval E, a period in the horizontal direction of said optical element forming said first optical system is HL1, a width in the horizontal direction of said light transmitting section of said optical modulator is Hm, a period in the horizontal direction of said optical element forming said second optical system is HL2, a pixel pitch in the horizontal direction of said image displaying device is Hd, optical distances between said first optical system and said second optical system and said first optical system and said image displaying device are LhL2 and Lhd,

respectively, an optical distance from the observation surface to said first optical system is Lh0, an optical distance from a crossing face that is the first one counted from said first optical system in the direction to said image displaying device among faces on which a group of light beams connecting the left and the right pupils and each pixel of said image displaying device cross is Lh1, an optical distance from said first optical system to [said optical modulator] a plane within said modulator on which said light transmitting section and said light shielding section are formed is Lh1a, an optical distance from said [first optical system] plane within said optical modulator to a crossing face that is the first one counted from said first optical system in the direction to said image displaying device is Lh1b, and both Nd and NL2 are integral numbers of 2 or more, the following relation is realized:

$Nd*HL1/E=Lhd/(Ldh+Lh0)$ ... (hl)

$Hd/HL1=(Lh0+Lhd)/Lh0$ ... (h2)

$NL2*HL1/E=LhL2/(LhL2+Lh0)$ ... (h3)

$HL2/HL1=(LhO+LhL2)/LhO$ ... (h4)

$Hl/E=Lh1/(Lh1+Lh0)$ ... (h5)

$H1/HL1=(Lh1+Lh0)/Lh0$ ... (h6)

$Hl*Lh1a/Lh1=HL1*Lh1b/Lh1$ ... (h7)

$Lh1a+Lh1b=Lh1$ ... (h8)

$Hm/H1=Lh1a/Lh1$ ... (h9)

20. (Amended) A stereoscopic image displaying method according to any one of claims 1, 2, 3 and 5, wherein

when a pixel pitch in the vertical direction of said image displaying device is Vd, a width in the vertical direction of said light transmitting section or said light shielding section of said optical modulator is Vm, an optical distance from said image displaying device to a face having optical actions in the vertical direction of said second optical system is Lv1, an optical distance from a face having optical actions in the vertical direction of said second optical system to said [optical modulator] <u>a plane within said modulator on which said light transmitting section and said light shielding section are formed</u> is Lv2, a focal distance in the vertical direction of each optical element forming said second optical system is fv, and an optical distance between said <u>plane within said</u> optical modulator and an observation surface is Lv0, the following relation is realized:

Vd:Vm=Lv1:Lv2 ... (vl)

2·Vd:VL=Lv1+Lv2:Lv2 ... (v2)

l/Lv1+1/Lv2=1/fv ... (v3)

Vd:VL=Lv0+Lv1+Lv2:Lv0+Lv2 ... (v4)

21. (Amended) A stereoscopic image displaying method according to claim 4, wherein

when a pixel pitch in the vertical direction of said image displaying device is Vd, a width in the vertical direction of said light transmitting section or said light shielding section

section of said optical modulator is Vm, an optical distance from said image displaying device to a face having optical actions in the vertical direction of said second optical system is Lv1, an optical distance from a face having optical actions in the vertical direction of said second optical system to [said optical modulator] <u>a plane within said modulator on which said light transmitting section and said light shielding section are formed</u> is Lv2, a focal distance in the vertical direction of each optical element forming said second optical system is fv, and an optical distance between said <u>plane within said</u> optical modulator and an observation surface is Lv0, the following relation is realized:

$Vd:Vm=Lv1:Lv2$ ... (vl)

$2 \cdot Vd:VL=Lv1+Lv2:Lv2$ ... (v2)

$1/Lv1+1/Lv2=1/fv$ ... (v3)

$Vd:VL=Lv0+Lv1+Lv2:Lv0+Lv2$ ... (v4)

22. (Amended) A stereoscopic image displaying method according to claim 18, wherein

when a pixel pitch in the vertical direction of said image displaying device is Vd, a width in the vertical direction of said light transmitting section or said light shielding section of said optical modulator is Vm, an optical distance from said image displaying device to a face having optical actions in the vertical direction of said second optical system is Lv1, an optical distance from a face having optical actions in the vertical direction of said second optical system to [said optical modulator] <u>a plane within said</u>

modulator on which said light transmitting section and said light shielding section are formed is Lv2, a focal distance in the vertical direction of each optical element forming said second optical system is fv, and an optical distance between said plane within said optical modulator and an observation surface is Lv0, the following relation is realized:

Vd:Vm=Lv1:Lv2 ... (vl)

2·Vd:VL=Lv1+Lv2:Lv2 ... (v2)

l/Lv1+1/Lv2=1/fv ... (v3)

Vd:VL=Lv0+Lv1+Lv2:Lv0+Lv2 ... (v4)

23. (Amended) A stereoscopic image displaying method according to claim 19, wherein

when a pixel pitch in the vertical direction of said image displaying device is Vd, a width in the vertical direction of said light transmitting section or said light shielding section of said optical modulator is Vm, an optical distance from said image displaying device to a face having optical actions in the vertical direction of said second optical system is Lv1, an optical distance from a face having optical actions in the vertical direction of said second optical system to [said optical modulator] a plane within said modulator on which said light transmitting section and said light shielding section are formed is Lv2, a focal distance in the vertical direction of each optical element forming said second optical system is fv, and an optical distance between said plane within said optical modulator and an observation surface is Lv0. the following relation is realized:

$Vd:Vm=Lv1:Lv2$ ... (vl)

$2\cdot Vd:VL=Lv1+Lv2:Lv2$ ... (v2)

$1/Lv1+1/Lv2=1/fv$ ... (v3)

$Vd:VL=Lv0+Lv1+Lv2:Lv0+Lv2$ ... (v4)

29. (Amended) A stereoscopic image displaying method, wherein each of parallax images corresponding to a plurality of different viewpoints is made a predetermined stripe image, display light, which is from a stripe image corresponding to one viewpoint of a synthesized parallax image on an image displaying device that can alternately display a synthesized parallax image in which the stripe images is arranged in a predetermined order and synthesized and a synthesized parallax image in which the arrangement is changed, is guided [to an optical modulator, which is formed in synchronism with the change of a synthesized parallax image that displays a predetermined pitch of light transmitting section and light shielding section by a second optical system disposed in the front of said image displaying device] <u>by a second optical system to a light transmitting section and a light shielding section which are formed on a plane within an optical modulator and are capable of changing over in synchronism with the change of a synthesized parallax image</u>, display light that has transmitted through said light transmitting section of said optical modulator are collected at a position corresponding lo a viewpoint on an observation face by a first optical system, and stereoscopic observation of image information displayed on said image displaying device is thereby performed.

30. (Amended) A stereoscopic image displaying method according to claim 29, wherein

display light reaching a viewpoint position of an observer that correspond to the stripe image among said display light emitted from pixels forming each of said stripe image is [collected in said optical modulator so as to be transmitted through said light shielding section of said optical modulator by said second optical system] collected by said second optical system in said plane within said optical modulator on which said light transmitting section and said light shielding section are formed so as to be transmitted through said light transmitting section of said modulator, and the other light is shielded by said light shielding section.

31. (Amended) A stereoscopic image displaying method according to claim 29 or 30, wherein

said second optical system forms an image [of pixels of said image displaying device on said optical modulator] of said image displaying device on said plane on which said light transmitting section and said light shielding section are formed in the vertical direction, and a focal point position and the position of said plane within said optical modulator substantially coincide with each other in the horizontal direction.